


## Russian 7.62-mm Assault Rifle AK-47/AKM

	<div>Ammunition Types</div> <div>7.62-mm cartridge Ball Tracer API Tracer Incendiary</div>	<div>Typical Combat Load</div> <div>120</div>
<div>SYSTEM</div> <div>Alternative Designations: AK, Kalashnikov</div> <div>Date of Introduction: 1949/1961</div> <div>Proliferation: Widespread (over 50 million)</div> <div>Description:</div> <div>Weight (kg):     Loaded (with magazine): 3.8     Empty (w/o magazine): 4.3/3.14</div> <div>Length (mm): 870/880</div> <div>Rate of Fire (rd/min):     Cyclic: 600     Practical:         Automatic: 100         Semiautomatic: 40</div> <div>Operation: Gas</div> <div>Feed: 30-round curved box magazine</div> <div>Fire Mode: Selective, automatic or semi-automatic</div> <div>SIGHTS</div> <div>Name: INA</div> <div>Type: Fore, pillar; rear, U-notch</div> <div>Magnification: None</div> <div>Night Sights Available: Yes</div>	<div>VARIANTS</div> <div>Numerous. Many countries manufacture clones of the AK-47 or weapons using the basic AK action. Some of these are made in different calibers.</div> <div>AKS: Folding stock.</div> <div>AKM: Improved AK-47, sights, magazine, and stock. Easier to manufacture with stamped receiver.</div> <div>AKMS: Folding stock variant of AKM.</div> <div>AMMUNITION</div> <div>Name: M1943 (57N231)</div> <div>Caliber/length: 7.62x39-mm</div> <div>Type: Ball</div> <div>Range (m):     Effective: 300     Maximum: 2,500</div> <div>Armor Penetration: INA</div> <div>Muzzle Velocity (m/s): 710</div> <div>Name: M1943 (T-45)</div> <div>Caliber/length: 7.62x39-mm</div> <div>Type: Tracer</div> <div>Range of Trace (m): 800</div> <div>Muzzle Velocity (m/s): 718</div>	


### NOTES

Photo is of an AKM. All 7.62-mm Kalashnikov assault rifles are very dependable weapons. They produce a high volume of fire and are simple to maintain and produce. The primary difference between the AK-47 and the improved AKM is the receiver. The receiver of the AK-47 is forged and machined while the receiver of the AKM is stamped metal facilitating easier manufacturing. Both the AK-47 and the AKM can mount a 40-mm under-barrel grenade launcher. The AK-47 and AKM have been replaced in many armies by the newer AK-74. The AK-74 is basically an AKM re-chambered to fire a 5.45-mm x 39-mm cartridge. The 7.62-mm RPK light machinegun is based on the AK/AKM design while the RPK-74 is a machinegun version of the AK-74.



1-4.2

## Russian 7.62-mm Sniper Rifle SVD

	<div>Ammunition Types</div> <div>7.62-mm cartridge</div> <div>Light Ball</div> <div>Heavy Ball</div> <div>Sniper</div> <div>Enhanced Penetration</div> <div>AP-I</div> <div>Tracer</div>	<div>Typical Combat Load</div> <div>40</div>
<div>SYSTEM</div> <div>Alternative Designations: Dragunov</div> <div>Date of Introduction: 1967</div> <div>Proliferation: Widespread</div> <div>Description:</div> <div>Weight (kg):</div> <div>Loaded (with magazine): 4.5</div> <div>Empty (w/o magazine): 4.3</div> <div>Length (mm):</div> <div>Overall: 1,230</div> <div>With Bayonet: 1,370</div> <div>Barrel: 620</div> <div>Rate of Fire (rd/min): 30</div> <div>Operation: Gas</div> <div>Feed: 10-rd detachable box magazine (15-rd available for the SVD-S)</div> <div>Fire Mode: Semi-automatic only</div> <div>SIGHTS</div> <div>Name: PSO-1</div> <div>Type: Infrared detection capability for night firing</div> <div>Magnification: 4x</div> <div>Field of View (°): 6</div> <div>Night Sights Available: Yes. NSPU-3 . The NSPU-3 increases accuracy to 1,000 m at night or during poor visibility.</div> <div>Sighting Range (m): 1,300</div> <div>VARIANTS</div> <div>SVD-S: Folding stock, 15-rd magazine</div> <div>SVU: Bullpup (trigger forward of magazine)</div> <div>OTs-03AS: SVU w/PSO-1 sight.</div> <div>6V1: SVD with PSO-1 sight.</div> <div>6V1-N3: SVD with NSPU-3 night sight.</div>	<div>AMMUNITION</div> <div>Name: Sniper (7N14)</div> <div>Caliber/length: 7.62x54R-mm rimmed</div> <div>Type: Steel core</div> <div>Range (m):</div> <div>Maximum: 3,800</div> <div>With Scope: 1,300</div> <div>Without Scope: 800</div> <div>Armor Penetration: INA</div> <div>Muzzle Velocity (m/s): 823</div> <div>Name: 7N13</div> <div>Caliber/length: 7.62x54R-mm rimmed</div> <div>Type: Enhanced penetration</div> <div>Range (m):</div> <div>Sighting: 2,000</div> <div>Armor Penetration (mm): INA. (Effective against lightly armored vehicles and crews.)</div> <div>Muzzle Velocity (m/s): INA</div> <div>Name: B-32</div> <div>Caliber/length: 7.62x54R-mm rimmed</div> <div>Type: AP-I</div> <div>Range (m):</div> <div>Sighting: 2,000</div> <div>Armor Penetration: 10-mm @ 200 m</div> <div>Muzzle Velocity (m/s): 808</div> <div>Name: T-46</div> <div>Caliber/length: 7.62x54R-mm rimmed</div> <div>Type: Tracer</div> <div>Range of Trace (m): 1,200</div> <div>Muzzle Velocity (m/s): 798</div>	

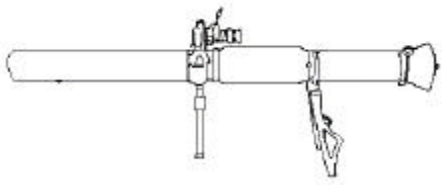
### NOTES

The bolt mechanism and gas recovery system of the SVD are similar to those of the AK and AKM. The 7.62x54-mm rimmed cartridge of the SVD is not interchangeable with the 7.62x39-mm rimless round of the AK-47/AKM. The SVD performs best when using target grade ammunition, however standard (PKM/PKT) 7.62x54-mm rimmed rounds may also be fired. One squad in each OPFOR mechanized infantry platoon has an SVD. The platoon leader and sniper normally ride in the first squad vehicle. While the sniper has received centralized training on the SVD he also has an assault rifle (usually AKS-74U) for normal combat. His SVD is carried in the IFV/APC for those instances when he acts as a sniper.



1-4.4

## United States 90-mm Recoilless Rifle M67

	<b>Ammunition Types</b>  <b>90-mm recoilless gun</b> HE HEAT APERS Target Practice	<b>Typical Combat Load</b>  7
<b>SYSTEM</b>  <b>Alternative Designations:</b> INA <b>Date of Introduction:</b> Late 1940s <b>Proliferation:</b> At least 11 countries <b>Description:</b> Crew: 3 (see Note) Caliber (mm): 90 Weight (empty) (kg): 16.4 Length (mm): 1.35 Height (ground-mounted) (mm): 432 Mount: Rear bipod and forward monopod Feed: Manual Rate of Fire (rd/min): Maximum: 1 each 6 seconds, not to exceed 5 rounds Sustained: 1 Fire From Inside Building: No  <b>SIGHTS</b>  <b>Name:</b> M103 Type: Optical, (graduated in 50 m intervals up to 400 m, every 100 m up to 800 m) Magnification: x3 Field of View (°): 10 Location: Left center  <b>VARIANTS (INA)</b>	<b>AMMUNITION</b>  <b>Name:</b> INA Type: HE Range (m): Effective: 400 Weight (kg): INA  <b>Name:</b> M371E1 Type: HEAT Range (m): Aimed: 800 Effective: 420 Penetration: Armor (mm): 350 Weight (kg): 4.2 Fuze: Point Detonating Muzzle Velocity (m/s): 213  <b>Name:</b> XM590E1 Type: APERS Canister (antipersonnel) Fill: 2,400 eight-grain flechettes Range (m): Effective: 200 Weight (kg): 3.08 Muzzle Velocity (m/s): 381  <b>Name:</b> XM590E1 Type: Target Practice Range (m): Ballistically identical to the HEAT M371E1 Weight (kg): 3.08 Muzzle Velocity (m/s): 381	

### NOTES

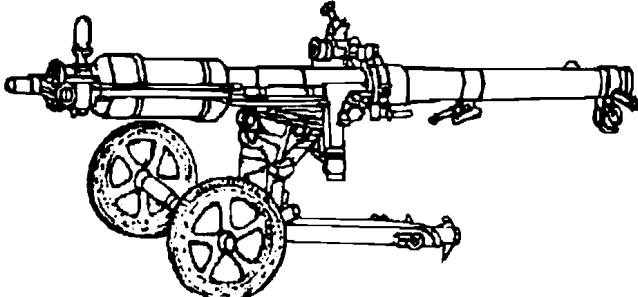
The M67 90-mm recoilless rifle is a lightweight, portable, direct-fire only, crew-served antitank weapon. It is designed to be fired primarily from the ground using the bipod and monopod, but it may be fired from the shoulder. It is an air-cooled, breech-loaded, single-shot rifle that fires fixed ammunition. Although intended primarily for use as an antitank weapon, the M67 can be used against secondary targets such as gun emplacements and bunkers. It is also very effective in an anti-personnel role. Although no longer produced in the US, the M67 is still in production by South Korea.

The crew consists of a gunner, assistant gunner, and ammo bearer. The M67 can be operated with a crew of only two; however, the third crew member (ammo bearer) is considered necessary for efficient operations. In the absence of an individual to perform the duties assigned to the ammo bearer, the gunner (crew member 1) lays and fires the 90-mm rifle and is the crew leader. He carries the M67 and a pistol. The loader (crew member 2) is responsible for loading the rifle and acts as the gunner when required. He secures ammunition and checks the clearance of the backblast area prior to firing. He carries a pistol, spare parts, cleaning materiel, and 3 rounds of 90-mm. The ammunition bearer (crew member 3) is responsible for securing ammunition and providing security for the recoilless rifle position. He carries an assault rifle and 4 rounds of 90-mm.





## Russian 82-mm Recoilless Gun B-10

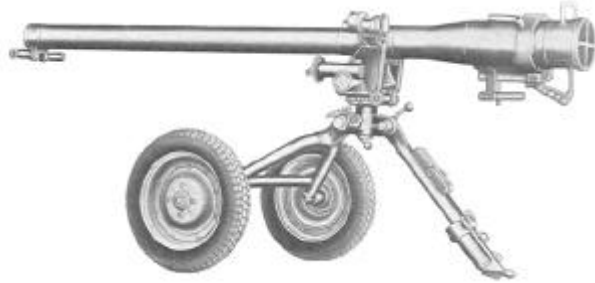
	<table><tr><th>Ammunition Types</th><th>Typical Combat Load</th></tr><tr><td>82-mm recoilless gun</td><td>36</td></tr><tr><td>HEAT</td><td>12</td></tr><tr><td>HE/Frag-HE</td><td>24</td></tr></table>	Ammunition Types	Typical Combat Load	82-mm recoilless gun	36	HEAT	12	HE/Frag-HE	24
Ammunition Types	Typical Combat Load								
82-mm recoilless gun	36								
HEAT	12								
HE/Frag-HE	24								
<p><b>SYSTEM</b></p> <p><b>Alternative Designations:</b> RG82 <b>Date of Introduction:</b> 1950s <b>Proliferation:</b> At least 10 countries</p> <p><b>Description:</b> Crew: 4 Caliber (mm): 82 Weight (kg):     Firing Position: 85.3, 71.7 without wheels     Travel Position: 85.3, 71.7 without wheels     Tripod: 6.5 Length (travel) (m): 1.85 Width (travel) (m): INA Height (travel) (m): INA Rifling: None Breech Mechanism Type: Horizontally hinged Feed: Breech load Traverse (°): 250 each direction, 360 total Elevation (°): -20/+35 Rate of Fire (rd/min): 5-7 Emplacement/displacement time (min): 1/0.5 Fire From Inside Building: No</p> <p><b>SIGHTS</b></p> <p><b>Name:</b> PBO-2 combination, and iron Type: Optical, panoramic and iron Magnification: Optical 5.5x direct/2.5x indirect Location: Left side Sighting Range (m): 1,000 direct                             4,500 indirect</p> <p><b>Night Sights Available:</b> Direct and indirect (illuminated)</p>	<p><b>VARIANTS</b></p> <p><b>Type 65:</b> This Chinese variant weighs only 28.2 kg (with tripod but without wheels). The gun uses the Type 69 combination sight and fires a mix of ammunition including the Type 65 HEAT round.</p> <p><b>Type 65-1:</b> Chinese variant with a two-piece gun tube for long distance dismantled carry. Estimated weight is still 28.2 kg.</p> <p><b>AMMUNITION</b></p> <p><b>Name:</b> BK-881M Type: HEAT Range (m):     Maximum Effective: 400     Maximum Aimed Range: 1,000 (direct)     Maximum Range: 4,500 Armor Penetration (mm): 240 Complete Round Weight (kg): 4.87 Muzzle Velocity (m/s): 322</p> <p><b>Name:</b> Type 65 Type: HEAT Range (m):     Maximum Effective: 450     Maximum Aimed Range: INA     Maximum Range: 3,750 Armor Penetration (mm): 356 Complete Round Weight (kg): 3.5 Muzzle Velocity (m/s): 240</p> <p><b>Name:</b> O-881A Type: Frag-HE Range (m):     Maximum Effective: 4,500 (indirect)     Maximum Aimed Range: 1,000 direct/4,500 indirect     Maximum Range: 7,300 Lethal radius (m): INA Complete Round Weight (kg): 4.87 Muzzle Velocity (m/s): 320</p>								

### NOTES

The B-10 can be mounted on a pintel, but is normally towed on a two-wheeled carriage with an under-slung tripod. The gun can be fired while on two wheels or on the tripod.

Other ammunition types include O-881 HE and BK-881 HEAT.

## Former Yugoslavian 82-mm Recoilless Gun M60

		<div>Ammunition Types</div> <div>82-mm recoilless gun HEAT</div>	<div>Typical Combat Load</div> <div>36</div>
<div>SYSTEM</div> <div>Alternative Designations: M60A</div> <div>Date of Introduction: First sighted 1965</div> <div>Proliferation: At least 2 countries</div> <div>Description:</div> <div>Crew: 2-5</div> <div>Caliber (mm): 82</div> <div>Weight (kg):</div> <div>    Firing Position: 122</div> <div>    Travel Position: 122</div> <div>    Tripod: INA</div> <div>Length (travel) (m): 2.4 approximate</div> <div>Width (travel) (m): 1.0 approximate, firing position</div> <div>Height (travel) (m): 0.83 approximate, firing position</div> <div>Rifling: Yes, 4 with left rotation</div> <div>Breech Mechanism Type: Vertically hinged with flange rotate lock</div> <div>Feed: Breech load</div> <div>Traverse (°): 360</div> <div>Elevation (°): -20 to +35</div> <div>Rate of Fire (rd/min): 4</div> <div>Emplacement/displacement time (min): 0.5/ 0.5</div> <div>Fire From Inside Building: No</div> <div>SIGHTS</div> <div>Name: INA</div> <div>Type: Optical telescopic</div> <div>Magnification: INA</div> <div>Location: Left side</div> <div>Sighting Range (m): 1,500</div> <div>Night Sights Available: INA</div>	<div>VARIANTS</div> <div>Distinction between M60 and M60A is unknown.</div> <div>AMMUNITION</div> <div>Name: M60</div> <div>Type: HEAT</div> <div>Range (m):</div> <div>    Maximum Effective: 500</div> <div>    Maximum Aimed Range: 1,500 stationary target   </div>		

### NOTES

The M60 is mounted on a two-wheeled carriage with a trailing leg that is used as a tripod leg for firing, as well as a tow bar for towing the gun. The gun can be towed behind a variety of vehicles, then moved into position by hand. Gun height is adjustable based on wheel and leg lock settings. The M60 can also be mounted on a pintel, such as the antitank version of the M-60PB APC, which features two guns. Back-blast safety area is 45 m deep by 25 m wide.